

Application No. 10/674,971
Amendment dated June 20, 2008
Reply to Office Action of April 23, 2008

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REMARKS

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Applicant cancelled dependent claims 60 and 61 without prejudice or disclaimer of their subject matter and amended independent claims 29 and 39 to further define Applicant's claimed invention. Support for the amendment to claims 29 and 39 appears in the specification at least on page 9, lines 1-3 and page 15, lines 9-13, and FIGS. 1 and 6C. No new matter has been added.

In the Office Action, the Examiner rejected claims 29-61 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner admits that "the drawing of Exhibit 1 appears to show at least portions of medial and lateral leading end corners seated on, or placed on (e.g., instant claim 61), the peripheral rim AR." (Office Action, page 2, lines 22-24). However, the Examiner contends that the drawing is a two-dimensional representation of three-dimensional structure, and such corners would have been interpreted by the ordinary practitioner to be located *within the disc space and spaced from the adjacent vertebral bodies.*" (Office Action, page 2, line 24 through page 3, line 2) (emphasis in original). Applicant respectfully disagrees with the Examiner's contentions.

The methods of independent claims 29 and 39 recite the act of forming a curved opening across a height of the disc space and into a portion of each of the adjacent vertebral bodies and inserting an implant into the opening. Applicant's FIGS. 8, 13A, and 14A show examples of curved openings formed across the height of the disc space and into a portion of each of the vertebral bodies (V). Implants are inserted into the curved openings formed in the vertebral bodies (V) and sit on the apophyseal rim. (Specification, page 15, lines 5-10). The method of claims 29 and 39 recite the act of positioning the leading end and the trailing end of the implant so that at least a portion of the implant proximate the leading end and at least a portion of the implant proximate the trailing end of the implant between the medial side and the mid-longitudinal axis of the implant overlie the peripheral rim of the densely compacted bone along the anatomical curvature of the adjacent vertebral bodies and do not substantially protrude from the spine. The portions of the implant that overlie the peripheral rim of the densely

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compacted bone along the anatomical curvature of the adjacent vertebral bodies are not limited to the "corners" referred to by the Examiner.

Moreover, Applicant's specification teaches that the implants shown in FIG. 6C "have the maximum surface area of contact with the vertebrae" and "sit upon the very good structural bone present at the periphery of the vertebral bodies." (Specification, page 15, lines 11-13). Thus, Applicant respectfully disagrees with the Examiner's contention that the "original disclosure ... neither describes nor fairly suggests to one of ordinary skill the claimed method involving an implant length 'adapted to allow at least a portion of the leading end ... to be seated on the peripheral rim of the densely compacted bone along the anatomical curvature of the adjacent vertebral bodies.'" (Office Action, page 2, lines 10-13). Nonetheless, in order to expedite prosecution of this application, Applicant amended independent claims 29 and 39 to delete the language objected to by the Examiner and cancelled claims 60 and 61 without prejudice or disclaimer of the deleted subject matter. Applicant reserves the right to pursue claims directed to this subject matter at a future date.

In particular, Applicant amended independent claims 29 and 39 to recite the act of providing an implant having a length between the leading and trailing ends "adapted to allow at least a portion of the implant proximate the leading end and at least a portion of the implant proximate the trailing end of the implant to overlie the peripheral rim of the densely compacted bone along the anatomical curvature of the adjacent vertebral bodies." The language added to the act of providing the implant is consistent with the language in the act of "positioning the leading end and the trailing end of the implant so that at least a portion of the implant proximate the leading end and at least a portion of the implant proximate the trailing end of the implant ... overlie the peripheral rim of the densely compacted bone along the anatomical curvature of the adjacent vertebral bodies" present in independent claims 29 and 39. Applicant submits that all of the elements and their relationships were either earlier claimed or inherent in the claims as examined. Accordingly, the proposed amendment of independent claims 29 and 39

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does not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner. (See MPEP § 714.13).

Furthermore, the written description and the drawings fully support an implant having a length "adapted to allow at least a portion of the implant proximate the leading end and at least a portion of the implant proximate the trailing end of the Implant to overlie the peripheral rim of the densely compacted bone along the anatomical curvature of the adjacent vertebral bodies" as now claimed in independent claims 29 and 39. In particular, Applicant's specification teaches that "the implant ... is able to seat upon the dense compacted bone in the perimeter of the vertebral bodies for supporting the load through the implant when installed in the intervertebral space." (Specification, page 9, lines 1-3). The specification further teaches that implants 100 of FIG. 6C "have both a maximum safe width and length," and "sit on the peripheral vertebral body rim, including the anterior cortex and/or the apophyseal rim." (Page 15, lines 9-10). FIGS. 1 and 6C taken together show that at least a portion of implant 100 proximate leading end 102 and at least a portion of implant 100 proximate trailing end 104 overlie the peripheral rim AR of the densely compacted bone along the anatomical curvature of the vertebral body. Thus, it is respectfully submitted that in accordance with 35 U.S.C. § 112, first paragraph, Applicant's original specification contains a written description of the invention claimed in independent claims 29 and 39 in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same.

Applicant submits that the Examiner's rejection of claims under 35 U.S.C. § 112, first paragraph, has been overcome.

Applicant submits that independent claims 29 and 39 are patentable and that dependent claims 30-38 and 40-59 dependent from one of independent claims 29 and 39, or claims dependent therefrom, are patentable at least due to their dependency from an allowable independent claim. Applicant therefore requests the entry of this Amendment, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims. Finally, Applicant submits that the entry of

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the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

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To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this reply, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 50-3726.

Respectfully submitted,

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Dated: June 20, 2008

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